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In re Application of

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For: METHOD AND APPARATUS FOR  
REDUCING LATENCY AND MESSAGE  
TRAFFIC DURING DATA AND LOCK  
TRANSFER IN A MULTI-NODE SYSTEM

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**AMENDMENT AFTER FINAL**

Sir:

This is in response to the Final Office Action mailed May 20, 2005, the two-month period for which runs until July 20, 2005. The Applicants respectfully request entry of the following amendments and reconsideration of the application in light of the following remarks.

**Amendments to the Claims** begin on page 2 of this paper.

**Remarks** begin on page 18.

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## IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

### Listing of Claims:

1. 1. (Currently amended) A method for managing access to a resource, the method comprising the computer-implemented steps of:  
2. sending, from a requestor to a master of the resource, a lock mode request for a  
3. lock mode on the resource;  
4. receiving the resource at the requestor from a holder of the resource, wherein the  
5. holder of the resource is separate and distinct from the master of the  
6. resource, and wherein the holder is a process that currently holds rights to  
7. access the resource by virtue of a lock mode, on the resource, that was  
8. previously granted to the holder by the master of the resource; and  
9. accessing the resource as if the requestor had been granted the lock mode without  
10. waiting to receive an express lock mode grant from the master.
1. 2. (Previously presented) The method of Claim 1, further comprising the computer-implemented steps of:  
2. detecting that the step of receiving the resource at the requestor has occurred; and  
3. sending a lock assume message, from the requestor to the master, to inform the  
4. master that the requestor has assumed the lock mode relative to the  
5. resource.
1. 3. (Previously presented) A method for managing access to a resource, the method comprising the computer-implemented steps of:  
2. receiving, at a holder, an inform lock holder message that a requestor needs the  
3. resource, where the holder currently holds the resource and a first lock  
4. mode on the resource;  
5. transferring the resource to the requestor in response to receiving the inform lock  
6. holder message without sending a status message to a master of the  
7. resource.

- 8                   resource wherein the status message is a down-convert message or a  
9                   release lock message; and  
10                  updating a lock mode record, maintained by the holder, to indicate that the holder  
11                  has down-converted from the first lock mode to a second lock mode for  
12                  the resource.
- 1     4. (Previously presented) The method of Claim 3, further comprising the computer-  
2                  implemented step of:  
3                  sending an update lock message to the master, wherein the update lock message  
4                  indicates the second lock mode for the resource.
- 1     5. (Previously presented) The method of Claim 3, further comprising the computer-  
2                  implemented steps of:  
3                  receiving, at the holder, a message from a sender, wherein the message includes a  
4                  third lock mode on the resource;  
5                  detecting that the first lock mode and the third lock mode do not match; and  
6                  sending a lock status message to the sender, wherein the lock status message  
7                  includes the first lock mode.
- 1     6. (Previously presented) The method of Claim 3, further comprising the computer-  
2                  implemented steps of:  
3                  receiving, at the holder, a single batched inform lock holder message that contains  
4                  all information necessary to transfer the resource to a plurality of  
5                  requestors; and  
6                  transferring the resource to the plurality of requestors.
- 1     7. (Previously presented) The method of Claim 3, further comprising the computer-  
2                  implemented step of:  
3                  sending a lock access message from the holder to a master.
- 1     8. (Previously presented) A method for managing access to a resource, the method

2 comprising the computer-implemented steps of:  
3 receiving, at a master, a request message which indicates that a requestor needs a  
4 particular resource of a plurality of resources, where the master maintains  
5 a plurality of lock mode records corresponding to the plurality of  
6 resources;  
7 sending, from the master to a holder, an inform lock holder message to indicate to  
8 the holder that the requestor needs the particular resource and to identify  
9 the requestor to the holder to allow the holder to send the particular  
10 resource directly to the requestor;  
11 receiving a lock access message from the requestor where the lock access message  
12 indicates that the requestor has assumed a lock mode relative to the  
13 particular resource; and  
14 performing an update to a particular lock mode record of the plurality of lock  
15 mode records in response to receiving the lock access message, wherein  
16 the update indicates that the requestor has assumed the lock mode on the  
17 particular resource.

- 1 9. (Previously presented) The method of Claim 8, wherein the computer-  
2 implemented step of performing an update to a particular lock mode record of the  
3 plurality of lock mode records in response to receiving the plurality of lock mode  
4 records in response to receiving the lock access message is performed prior to  
5 receiving any status message from the holder relating to the particular resource,  
6 and wherein the status message is a down-convert message or a release lock  
7 message.
- 1 10. (Previously presented) The method of Claim 8, wherein the computer-  
2 implemented step of performing an update to a particular lock mode record of the  
3 plurality of lock mode records in response to receiving the plurality of lock mode  
4 records in response to receiving the lock access message is performed without  
5 receiving the status message from the holder relating to the particular resource,  
6 and wherein the status message is a down-convert message or a release lock

7 message.

1 11. (Previously presented) The method of Claim 8, further comprising the computer-  
2 implemented steps of:  
3 receiving, at the master, a plurality of request messages which indicate that a  
4 plurality of requestors need the particular resource; and  
5 sending from the master to the holder the inform lock holder message, wherein the  
6 inform lock holder message contains all information from the plurality of  
7 request messages that is necessary for the holder to transfer the particular  
8 resource to the plurality of requestors.

1 12. (Previously presented) The method of Claim 8, further comprising the computer-  
2 implemented steps of:  
3 receiving, at the master, a message from a sender, wherein the message includes a  
4 second lock mode on the particular resource;  
5 detecting that the lock mode and the second lock mode do not match; and  
6 sending a lock status message to the sender, wherein the lock status message  
7 includes the lock mode.

1 13. (Previously presented) The method of Claim 8, further comprising the computer-  
2 implemented steps of:  
3 receiving, at the master, a second request message, wherein the request message  
4 and the second request message both contain requests for the resource in  
5 exclusive lock mode; and  
6 queuing the second request message until the master receives the lock access  
7 message from the requestor.

1 14. (Previously presented) A method for managing access to a resource, the method  
2 comprising the computer-implemented steps of:  
3 receiving, at a master, a request message which indicates that a requestor needs a  
4 particular resource of a plurality of resources, where the master maintains

5           a plurality of lock mode records corresponding to the plurality of  
6           resources;  
7           designating one holder out of a plurality of holders wherein the plurality of  
8           holders all have respective lock modes for the particular resource;  
9           sending a plurality of broadcast inform lock holder messages, to the plurality of  
10          holders except for the one holder, indicating that the requestor needs the  
11          particular resource;  
12          receiving a plurality of update lock messages from the plurality of holders except  
13           for the one holder, wherein the plurality of update lock messages indicates  
14           the respective lock modes of the plurality of holders;  
15          sending, from the master to the one holder, an inform lock holder message to  
16           indicate to the one holder that the requestor needs the particular resource;  
17          receiving a lock access message from the requestor where the lock access message  
18           indicates that the requestor has assumed a lock mode relative to the  
19           particular resource; and  
20          performing an update to a particular lock mode record of the plurality of lock  
21           mode records in response to receiving the lock access message without the  
22           master receiving a status message from the one holder, wherein the status  
23           message is a down-convert message or a release lock message, and  
24           wherein the update indicates that the requestor has assumed the lock mode  
25           on the particular resource.

1       15. (Currently amended) A computer system, comprising:  
2           a processor;  
3           a computer-readable medium storing instructions of the computer system which,  
4           when executed by the processor, cause the processor to perform the computer-  
5           implemented steps of:  
6           sending, from a requestor to a master of a resource, a lock mode request for the  
7           lock mode on the resource;  
8           receiving the resource at the requestor from a holder of the resource, wherein the  
9           holder of the resource is separate and distinct from the master of the

10                   resource, and wherein the holder is a process that currently holds rights to  
11                   access the resource by virtue of a lock mode, on the resource, that was  
12                   previously granted to the holder by the master of the resource; and  
13                   accessing the resource as if the requestor had been granted the lock mode without  
14                   waiting to receive an express lock mode grant from the master.

1       16. (Previously presented) The computer system of Claim 15, wherein the computer-  
2                   implemented steps further comprise the computer-implemented steps of:  
3                   detecting that the step of receiving the resource at the requestor has occurred; and  
4                   sending a lock assume message from the requestor to the master to inform the  
5                   master that the requestor has assumed the lock mode relative to the  
6                   resource.

1       17. (Previously presented) A computer system, comprising:  
2                   a processor;  
3                   a computer-readable medium, coupled to the processor, containing:  
4                   a particular lock mode record of a plurality of lock mode records  
5                   corresponding to a lock mode of a particular resource of a plurality  
6                   of resources, where a master maintains the plurality of lock mode  
7                   records corresponding to the plurality of resources, wherein the  
8                   computer-readable medium stores instructions of the computer  
9                   system which, when executed by the processor, cause the processor  
10                  to perform the computer-implemented steps of:  
11                  receiving, at the master, a request message which indicates that a  
12                  requestor needs the particular resource of the plurality of  
13                  resources, where the master maintains the plurality of lock  
14                  mode records corresponding to the plurality of resources;  
15                  sending, from the master to a holder, an inform lock holder  
16                  message to indicate to the holder that the requestor needs  
17                  the particular resource and to identify the requestor to the  
18                  holder to allow the holder to send the particular resource

19 directly to the requestor;  
20 receiving a lock access message from the requestor where the lock  
21 access message indicates that the requestor has assumed the  
22 lock mode relative to the particular resource; and  
23 performing an update to the particular lock mode record of the  
24 plurality of lock mode records in response to receiving the  
25 lock access message without receiving a status message,  
26 and  
27 wherein the update indicates that the requestor has assumed the  
28 lock mode on the particular resource.

- 1 18. (Previously presented) The computer system of Claim 17, wherein the computer-  
2 implemented step of performing an update to a particular lock mode record of the  
3 plurality of lock mode records in response to receiving the lock access message is  
4 performed prior to receiving any status message from the holder relating to the  
5 particular resource, and wherein the status message is a down-convert message or  
6 a release lock message.

1 19. (Previously presented) The computer system of Claim 17, wherein the computer-  
2 implemented step of performing an update to a particular lock mode record of the  
3 plurality of lock mode records in response to receiving the plurality of lock mode  
4 records in response to receiving the lock access message is performed without  
5 receiving the status message from the holder relating to the particular resource,  
6 and wherein the status message is a down-convert message or a release lock  
7 message.

1 20. (Previously presented) The computer system of Claim 17, wherein computer-  
2 implemented steps further comprise the computer-implemented steps of:  
3 receiving, at the master, a plurality of request messages which indicate that a  
4 plurality of requestors need the particular resource; and  
5 sending, from the master to the holder, the inform lock holder message, wherein

- 6                   the inform lock holder message contains all information from the plurality  
7                   of request messages that is necessary for the holder to transfer the  
8                   particular resource to the plurality of requestors.
- 1   21. (Previously presented) The computer system of Claim 17, wherein the computer-  
2                   implemented steps further comprise the computer-implemented steps of:  
3                   receiving, at the master, a message from a sender, wherein the message includes a  
4                   second lock mode on the particular resource;  
5                   detecting that the lock mode and the second lock mode do not match; and  
6                   sending a lock status message to the sender, wherein the lock status message  
7                   includes the lock mode.
- 1   22. (Previously presented) The computer system of Claim 17, wherein the computer-  
2                   implemented steps further comprise the computer- implemented steps of:  
3                   receiving, at the master, a second request message wherein the request message  
4                   and the second request message both contain requests for the resource in  
5                   exclusive lock mode; and  
6                   queuing the second request message until the master receives the lock access  
7                   message from the requestor.
- 1   23. (Previously presented) A computer system, comprising:  
2                   a processor;  
3                   a computer-readable medium, coupled to the processor, containing:  
4                   a particular lock mode record of a plurality of lock mode records  
5                   corresponding to a lock mode of a particular resource of a plurality  
6                   of resources, where a master maintains the plurality of lock mode  
7                   records corresponding to the plurality of resources, wherein the  
8                   computer-readable medium stores instructions of the computer  
9                   system which, when executed by the processor, cause the processor  
10                  to perform the computer-implemented steps of:  
11                  receiving, at a master, a request message which indicates that a

12 requestor needs the particular resource of the plurality of  
13 resources, where the master maintains the plurality of lock  
14 mode records corresponding to the plurality of resources;  
15 designating one holder out of a plurality of holders wherein the  
16 plurality of holders all have respective lock modes for the  
17 particular resource;  
18 sending a plurality of broadcast inform lock holder messages, to  
19 the plurality of holders except for the one holder, indicating  
20 that the requestor needs the particular resource;  
21 receiving a plurality of update lock messages from the plurality of  
22 holders except for the one holder, wherein the plurality of  
23 update lock messages indicates the respective lock modes  
24 of the plurality of holders;  
25 sending, from the master to the one holder, an inform lock holder  
26 message to indicate to the one holder that the requestor  
27 needs the particular resource;  
28 receiving a lock access message from the requestor where the lock  
29 access message indicates that the requestor has assumed the  
30 lock mode relative to the particular resource; and  
31 performing an update to the particular lock mode record of the  
32 plurality of lock mode records in response to receiving the  
33 lock access message without the master receiving a status  
34 message from the one holder,  
35 wherein the status message is a down-convert message or a release  
36 lock message, and  
37 wherein the update indicates that the requestor has assumed the  
38 lock mode on the particular resource.

- 1 24. (Previously presented) A computer system, comprising:
- 2 a processor;
- 3 a computer-readable medium, coupled to the processor, containing:

4           a resource and a first lock mode on the resource; and  
5           a lock mode record associated with the resource, wherein the computer-  
6           readable medium stores instructions of the computer system which,  
7           when executed by the processor, cause the processor to perform the  
8           computer-implemented steps of:  
9           receiving, at a holder, an inform lock holder message that a  
10           requestor needs the resource, wherein the holder currently  
11           holds the resource and the first lock mode on the resource;  
12           transferring the resource to the requestor in response to receiving  
13           the inform lock holder message without sending a status  
14           message to a master of the resource wherein the status  
15           message is a down-convert message or a release lock  
16           message; and  
17           updating the lock mode record, maintained by the holder, to  
18           indicate that the holder has down-converted from the first  
19           lock mode to a second lock mode for the resource.

1   25. (Previously presented) The computer system of Claim 24, wherein the computer-  
2           implemented steps further comprise the computer-implemented step of:  
3           sending an update lock message to the master, wherein the update lock message  
4           indicates the second lock mode for the resource.

1   26. (Previously presented) The computer system of Claim 24, wherein the computer-  
2           implemented steps further comprise the computer-implemented steps of:  
3           receiving, at the holder, a message from a sender, wherein the message includes a  
4           third lock mode on the resource;  
5           detecting that the first lock mode and the third lock mode do not match; and  
6           sending a lock status message to the sender, wherein the lock status message  
7           includes the first lock mode.

1   27. (Previously presented) The computer system of Claim 24 wherein the computer-

2            implemented steps further comprise the computer-implemented steps of:  
3            receiving, at the holder, a single batched inform lock holder message that contains  
4            all information necessary to transfer the resource to a plurality of  
5            requestors; and  
6            transferring the resource to the plurality of requestors.

1        28. (Currently amended) A computer-readable medium carrying one or more  
2            sequences of instructions for managing access to a resource, wherein execution of  
3            the one or more sequences of instructions by one or more processors causes the  
4            one or more processors to perform the steps of:  
5            sending, from a requestor to a master of the resource, a lock mode request for a  
6            lock mode on the resource;  
7            receiving the resource at the requestor from a holder of the resource, wherein the  
8            holder of the resource is separate and distinct from the master of the  
9            resource, and wherein the holder is a process that currently holds rights to  
10            access the resource by virtue of a lock mode, on the resource, that was  
11            previously granted to the holder by the master of the resource; and  
12            accessing the resource as if the requestor had been granted the lock mode request  
13            without waiting to receive an express lock mode grant from the master.

1        29. (Previously presented) The computer-readable medium of Claim 28, wherein  
2            execution of the one or more sequences of instructions by the one or more  
3            processors causes the one or more processors to further perform the steps of:  
4            detecting that the step of receiving the resource at the requestor has occurred; and  
5            sending a lock assume message from the requestor to the master to inform the  
6            master that the requestor has assumed the lock mode relative to the  
7            resource.

1        30. (Previously presented) A computer-readable medium carrying one or more  
2            sequences of instructions for managing access to a resource, wherein execution of  
3            the one or more sequences of instructions by one or more processors causes the

4       one or more processors to perform the steps of:  
5           receiving, at a holder, an inform lock holder message that a requestor needs the  
6           resource, where the holder currently holds the resource and a first lock  
7           mode on the resource;  
8           transferring the resource to the requestor in response to receiving the inform lock  
9           holder message without sending a status message to a master of the  
10          resource wherein the status message is a down-convert message or a  
11          release lock message; and  
12          updating a lock mode record, maintained by the holder, to indicate that the holder  
13          has down-converted from the first lock mode to a second lock mode for  
14          the resource.

1     31. (Previously presented) The computer-readable medium of Claim 30, wherein  
2           execution of the one or more sequences of instructions by the one or more  
3           processors causes the one or more processors to further perform the step of:  
4           sending an update lock message to the master, wherein the update lock message  
5           indicates the second lock mode for the resource.

1     32. (Previously presented) The computer-readable medium of Claim 30, wherein  
2           execution of the one or more sequences of instructions by the one or more  
3           processors causes the one or more processors to further perform the steps of:  
4           receiving, at the holder, a message from a sender, wherein the message includes a  
5           third lock mode on the resource;  
6           detecting that the first lock mode and the third lock mode do not match; and  
7           sending a lock status message to the sender, wherein the lock status message  
8           includes the first lock mode.

1     33. (Previously presented) The computer-readable medium of Claim 30, wherein  
2           execution of the one or more sequences of instructions by the one or more  
3           processors causes the one or more processors to further perform the steps of:  
4           receiving, at the holder, a single batched inform lock holder message that contains

- 5                   all information necessary to transfer the resource to a plurality of  
6                   requestors; and  
7                   transferring the resource to the plurality of requestors.
- 1   34. (Previously presented) The method for Claim 30, wherein execution of the one or  
2                   more sequences of instructions by the one or more processors causes the one or  
3                   more processors to further perform the step of:  
4                   sending a lock access message from the holder to a master.
- 1   35. (Previously presented) A computer-readable medium carrying one or more  
2                   sequences of instructions for managing access to a resource, wherein execution of  
3                   the one or more sequences of instructions by one or more processors causes the  
4                   one or more processors to perform the steps of:  
5                   receiving, at a master, a request message which indicates that a requestor needs a  
6                   particular resource of a plurality of resources, wherein the master  
7                   maintains a plurality of lock mode records corresponding to the plurality  
8                   of resources;  
9                   sending, from the master to a holder, an inform lock holder message to indicate to  
10                  the holder that the requestor needs the particular resource and to identify  
11                  the requestor to the holder to allow the holder to send the particular  
12                  resource directly to the requestor;  
13                  receiving a lock access message from the requestor where the lock access message  
14                  indicates that the requestor has assumed a lock mode relative to the  
15                  particular resource; and  
16                  performing an update to a particular lock mode record of the plurality of lock  
17                  mode records in response to receiving the lock access message, wherein  
18                  the update indicates that the requestor has assumed the lock mode on the  
19                  particular resource.
- 1   36. (Previously presented) The computer-readable medium of Claim 35, wherein the  
2                   step of performing an update to a particular lock mode record of the plurality of

- 3       lock mode records in response to receiving the lock access message is performed  
4       prior to receiving any status message from the holder relating to the particular  
5       resource, and wherein the status message is a down-convert  
6       message or a release lock message.
- 1   37. (Previously presented) The computer-readable medium of Claim 35, wherein the  
2       step of performing an update to a particular lock mode record of the plurality of  
3       lock mode records in response to receiving the plurality of lock mode records in  
4       response to receiving the lock access message is performed without receiving the  
5       status message from the holder relating to the particular resource, and wherein the  
6       status message is a down-convert message or a release lock message.
- 1   38. (Previously presented) The computer-readable medium of Claim 35, wherein  
2       execution of the one or more sequences of instructions by the one or more  
3       processors causes the one or more processors to further perform the steps of:  
4       receiving, at the master, a plurality of request messages which indicate that a  
5       plurality of requestors need the particular resource; and  
6       sending, from the master to the holder, the inform lock holder message, wherein  
7       the inform lock holder message contains all information from the plurality  
8       of request messages that is necessary for the holder to transfer the  
9       particular resource to the plurality of requestors.
- 1   39. (Previously presented) The computer-readable medium of Claim 35, wherein  
2       execution of the one or more sequences of instructions by the one or more  
3       processors causes the one or more processors to further perform the steps of:  
4       receiving, at the master, a message from a sender, wherein the message includes a  
5       second lock mode on the particular resource;  
6       detecting that the lock mode and the second lock mode do not match; and  
7       sending a lock status message to the sender, wherein the lock status message  
8       includes the lock mode.

- 1       40. (Previously presented) The computer-readable medium of Claim 35, wherein  
2           execution of the one or more sequences of instructions by the one or more  
3           processors causes the one or more processors to further perform the steps of:  
4           receiving, at the master, a second request message, wherein the request message  
5           and the second request message both contain requests for the resource in  
6           exclusive lock mode; and  
7           queuing the second request message until the master receives the lock access  
8           message from the requestor.
- 1       41. (Previously presented) A computer-readable medium carrying one or more  
2           sequences of instructions for managing access to a resource, wherein execution of  
3           the one or more sequences of instructions by one or more processors causes the  
4           one or more processors to perform the steps of:  
5           receiving, at a master, a request message which indicates that a requestor needs a  
6           particular resource of a plurality of resources, where the master maintains  
7           a plurality of lock mode records corresponding to the plurality of  
8           resources;  
9           designating one holder out of a plurality of holders wherein the plurality of  
10          holders all have respective lock modes for the particular resource;  
11          sending a plurality of broadcast inform lock holder messages, to the plurality of  
12          holders except for the one holder, indicating that the requestor needs the  
13          particular resource;  
14          receiving a plurality of update lock messages from the plurality of holders except  
15          for the one holder,  
16          wherein the plurality of update lock messages indicates the respective lock modes  
17          of the plurality of holders;  
18          sending, from the master to the one holder, an inform lock holder message to  
19           indicate to the one holder that the requestor needs the particular resource;  
20          receiving a lock access message from the requestor where the lock access message  
21           indicates that the requestor has assumed a lock mode relative to the  
22           particular resource; and

23            performing an update to a particular lock mode record of the plurality of lock  
24            mode records in response to receiving the lock access message without the  
25            master receiving a status message from the one holder,  
26            wherein the status message is a down-convert message or a release lock message,  
27            and  
28            wherein the update indicates that the requestor has assumed the lock mode on the  
29            particular resource.

1     42.       (Cancelled).

1     43.       (Cancelled).

**REMARKS**

The Examiner is thanked for the allowance of Claims 3-14, 17-27, and 30-41.

By this amendment, Claims 1, 15, and 28 have been amended to expressly recite an implicit definition of a term featured therein. Thus, amendments to the claims herein are made to improve readability of the claims, without acquiescence of the position of the Office Action or prejudice to pursue the previously presented claims in a continuation application. No claims have been added or cancelled herein. Hence, Claims 1-41 are pending in the application.

**FILED IDS HAS NOT BEEN ACKNOWLEDGED**

The Applicants have filed an Information Disclosure Statement (an “IDS”) on July 9, 2004. The Applicants have not yet received an initialed form PTO-1449 acknowledging receipt and consideration of the IDS. Consequently, Applicants respectfully request an initialed form PTO-1449 acknowledging receipt and consideration of the IDS filed on July 9, 2004.

**SUMMARY OF THE REJECTIONS**

Claims 1-2, 15-16, and 28-29 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by the published patent application WO 91/03024 by Masden et al. (“*Masden*”).

The rejections are respectfully traversed.

**CLAIMS 1-2, 15-16, AND 28-29 ARE PATENTABLE OVER MASDEN**

Each of Claims 1-2, 15-16, and 28-29 are patentable over *Masden* as each claim features subject matter that is not disclosed, taught, or suggested by the cited art.

Claim 1 is patentable over *Masden*

Claim 1 features the elements of:

“sending, from a requestor to a master of the resource, a lock mode request for a lock mode on the resource;  
receiving the resource at the requestor from a holder of the resource, wherein the holder of the resource is separate and distinct from the master of the resource, and wherein the holder is a process that currently holds rights to access the resource by virtue of a lock mode, on the resource, that was previously granted to the holder by the master of the resource; and  
accessing the resource as if the requestor had been granted the lock mode without waiting to receive an express lock mode grant from the master.” (emphasis added)

At least the above-underlined element is not disclosed, taught, or suggested by *Masden*.

There are significant differences between the approach of Claim 1 and the approach of *Masden*. According to the approach of Claim 1, a requestor sends a lock mode request for a lock mode on a resource to a master of the resource. The requestor receives the resource from a holder from the resource. The holder of the resource is separate and distinct from the master of the resource. The requestor accesses the resource as if the requestor had been granted the lock mode without waiting to receive an express lock mode grant from the master. Advantageously, the requestor may access the resource with greater speed than if the requestor had to wait to receive an express lock mode grant from the master of the resource.

The Applicants' specification (at page 1, lines 15-16) teaches that a "holder" of a data item refers to one or more entities that currently hold the rights to access the data item. The specification also teaches that the rights to access a data item are determined by virtue of a lock mode granted to the holder by the master of the data item (see, *inter alia*, page 1, line 22 – page 3, line 18). The specification further teaches that the master, holder(s), and requester(s) of a data item may be separate processes on a single node, processes on separate nodes, or some may be processes on the same node with others on separate nodes (See page 1, lines 19-21). Claim 1 is amended herein to expressly recite the implicit definition of a holder as used by the Applicants' specification. Specifically, Claim 1, as amended, recites the feature of "wherein the holder is a process that currently holds rights to access the resource by virtue of a lock mode, on the resource, that was previously granted to the holder by the master of the resource."

The Office Action argues that *Masden* teaches Claim 1 because:

the Applicant has indicated in the specification that the holder, master and requestor are separate processes, which may be on the same node or different nodes (Page 1, Lines 19-21). In *Masden*'s system the file server incorporates separate processes as the holder and master; thus the master and the holder are separate and distinct.

In support of this position, the Office Action argues that a holder, as claimed, is shown by mechanism 206 of *Masden*. Specifically, the Office Action asserts that the feature of "receiving the resource at the requestor from a holder of the resource" is shown by "(Figure 2, Reference 204 and 206)."

The element of "receiving the resource at the requestor from a holder of the resource, wherein the holder of the resource is separate and distinct from the master of the resource" is not disclosed, taught, or suggested by *Masden*. The Office Action argues that

a holder of the resource, as claimed, is taught by mechanism 206 of *Masden*. However, *Masden* teaches that mechanism 206 “provides storage for system files” (see page 5, lines 34-35). As such, mechanism 206 cannot be a holder of the resource as claimed, because the master of the resource does not and cannot assign, to the mechanism 206, rights to access the resource by virtue of a lock mode. In sharp contrast, the function of mechanism 206 is to store system files; therefore, while other entities may be assigned rights to access a resource stored in the mechanism 206, the system of *Masden* does not assign rights, to mechanism 206, to access a resource.

As a result, mechanism 206 cannot be read so broadly as to qualify as a holder of a resource. Consequently, *Masden* fails to disclose, teach, or suggest, “receiving the resource at the requestor from a holder of the resource, wherein the holder of the resource is separate and distinct from the master of the resource” because a mechanism 206 cannot be a “holder of the resource” since it cannot be assigned rights to access a resource.

Additionally, Claim 1 has been amended to recite the feature of “wherein the holder is a process that currently holds rights to access the resource by virtue of a lock mode, on the resource, that was previously granted to the holder by the master of the resource.” For at least the above reasons, *Masden* does not disclose, teach, or suggest this element. Further, mechanism 206 is a storage medium, not a process; thus, mechanism 206 additional fails to satisfy the claimed feature of this element that the holder “is a process.”

Consequently, as at least one element of Claim 1 is not disclosed, shown, or suggested by *Masden*, it is respectfully submitted that Claim 1 is patentable over *Masden* and is in condition for allowance.

Claims 2, 15, 16, 28, and 29 are patentable over *Masden*

Claim 15 includes limitations similar to Claim 1, except in the context of a system. Claim 28 includes limitations similar to Claim 1, except in the context of a computer-readable medium. It is therefore respectfully submitted that Claims 15 and 28 are each patentable over *Masden* for at least the reasons given above with respect to Claim 1.

Claims 2, 16, and 29 are dependent claims, each of which depends (directly or indirectly) on one of the claims discussed above. Each of Claims 2, 16, and 29 is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of Claims 2, 16, and 29 introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time, although the Applicants reserve the right to further point out the differences between the cited art and the novel features recited in the dependent claims.

## CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any fee shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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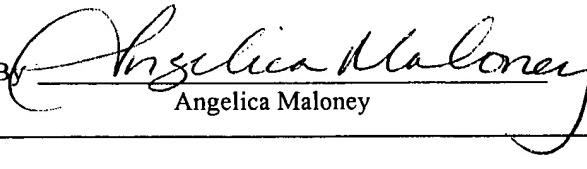
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### CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:  
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On July 20, 2005 By



Angelica Maloney